BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

PRE-MEASUREMENT

Name of work: Construction of RCC Drain at doddabommasandra Main road from Najappa Circle to Petrol Bunk in Ward No. 10 (Doddabommasandra).

Estimated Cost : Rs. 100.00 Lakhs

Head of Account : P-0541 Emergency Reserve Fund

Job Code: 010-20-000062

Name of Agency: Sri K.B. Alankar, H No. 12, MSV Network Road, near Shoba Apartment, Amruthahalli, Sahakaranagara Post, Bangalore - 560092.

Work order No: BBMP/EE/BTP/WO/199/2020-21 D: 01-03-2021.

Measurements Recarded on :

SL. NO.	DESCRIPTION OF WORK	Nos	L	B	D1	D2	Av.D	QTY	Unit
1	2	3	4	5	6	7	8	9	10
1	**Dismantling of existing structures** like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. **i) Lime /Cement Concrete. I. By Manual Means B. Cement Concrete Grade M-15 & M-20.**								Cum
	Coping	2	11.90	0.50			0.15	1.79	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	15.60	0.50			0.15	2.34	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	30.00	0.50			0.15	4.50	
		2	4.00	0.50			0.15	0.60	
						Total Qty =		**72.23**	
						Qty Limited to Tender Qty =		**72.00**	

Assistant Engineer
Ward No. 10

Assistant Executive Engineer
Vidayranyapura Sub Division

ASSISTANT EXECUTIVE ENGINEER
Vidyaranyapura Sub-Division
Bruhath Bengaluru Mahanagara P

SL. NO.	DESCRIPTION OF WORK	Nos	L	B	D1	D2	Av.D	QTY	Unit
1	2	3	4	5	6	7	8	9	10
	Measurements Recarded on :								
2	**Dismantling of existing** structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. iii) Dismantling Stone Masonry.B. **Rubble stone masonry in cement mortar**.								Cum
	SSM Drain wall Dismatling								
	R/S	1	25.00	(0.9+0.45) /2			1.55	26.35	
		1	28.30	(0.9+0.45) /3			1.55	29.83	
		1	23.40	(0.9+0.45) /4			1.55	24.66	
		1	16.80	(0.9+0.45) /5			1.55	17.71	
		1	28.00	(0.9+0.45) /6			1.55	29.51	
		1	23.10	(0.9+0.45) /7			1.55	24.35	
		1	16.70	(0.9+0.45) /8			1.55	17.60	
		1	19.70	(0.9+0.45) /9			1.55	20.76	
		1	13.60	(0.9+0.45) /10			1.55	14.33	
		1	16.70	(0.9+0.45) /11			1.55	17.60	
		1	17.30	(0.9+0.45) /12			1.55	18.23	
		1	22.60	(0.9+0.45) /13			1.55	23.82	
	L/S	1	12.80	(0.9+0.45) /14			1.55	13.49	
		1	14.90	(0.9+0.45) /15			1.55	15.70	
		1	13.10	(0.9+0.45) /16			1.55	13.81	
		1	10.90	(0.9+0.45) /17			1.55	11.49	
		1	16.40	(0.9+0.45) /18			1.55	17.29	
		1	18.70	(0.9+0.45) /19			1.55	19.71	
		1	26.50	(0.9+0.45) /20			1.55	27.93	
		1	28.10	(0.9+0.45) /21			1.55	29.62	
		1	16.40	(0.9+0.45) /22			1.55	17.29	
		1	15.50	(0.9+0.45) /23			1.55	16.34	
		1	19.50	(0.9+0.45) /24			1.55	20.55	
						Total Qty =		**467.98**	
						Qty Limited to Tender Qty =		**467.98**	
	Qty Upto 125%							**443.70**	
	Qty Above 125%							**24.28**	

Assistant Engineer
Ward No. 10

Assistant Executive Engineer
Vidayranyapura Sub Division

ASSISTANT EXECUTIVE ENGINEER
Vidyaranyapura Sub-Division
Bengaluru Mahanagara

SL. NO.	DESCRIPTION OF WORK	Nos	L	B	D1	D2	Av.D	QTY	Unit
1	2	3	4	5	6	7	8	9	10
	Measurements Recarded on :								
3	**Diversion of water course by providing Coffer dams or bunds** or islands as may be necessary for piers and abutments foundations, bailing out or pumping water during excavation and until completion etc., complete. - - **1.50 mtrs depth Below LWL**								Cum
	Construction of SSM Wall								
	R/S	1	25.00	(0.9+0.45) /2			0.60	10.20	
		1	28.30	(0.9+0.45) /3			0.60	11.55	
		1	23.40	(0.9+0.45) /4			0.60	9.55	
		1	16.80	(0.9+0.45) /5			0.60	6.85	
		1	28.00	(0.9+0.45) /6			0.60	11.42	
		1	23.10	(0.9+0.45) /7			0.60	9.42	
		1	16.70	(0.9+0.45) /8			0.60	6.81	
		1	19.70	(0.9+0.45) /9			0.60	8.04	
		1	13.60	(0.9+0.45) /10			0.60	5.55	
		1	16.70	(0.9+0.45) /11			0.60	6.81	
		1	12.70	(0.9+0.45) /12			0.60	5.18	
				Total Qty =				**91.39**	
				Qty Limited to Tender Qty =				**91.39**	
	Qty Upto 125%							**91.35**	
	Qty Above 125%							**0.04**	

Assistant Engineer 10/01
Ward No. 10

Assistant Executive Engineer
Vidayranyapura Sub Division

ASSISTANT EXECUTIVE ENGINEER
Vidyaranyapura Sub-Division
Bruhath Bengaluru Mahanagara

SL. NO.	DESCRIPTION OF WORK	Nos	L	B	D1	D2	Av.D	QTY	Unit
1	2	3	4	5	6	7	8	9	10
	Measurements Recarded on :								
4	**Earth work in excavation for foundation of structures** as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per specifications. **"V. Marshy soil - B. Mechanical Means**								Cum
	Removal Silt in SSM Drain								
		1	11.90	1.90	0.60	0.65	0.63	14.13	
		1	30.00	1.90	0.65	0.60	0.63	35.63	
		1	30.00	1.90	0.60	0.60	0.60	34.20	
		1	30.00	1.90	0.60	0.70	0.65	37.05	
		1	15.60	1.80	0.70	0.65	0.68	18.95	
		1	30.00	1.80	0.65	0.75	0.70	37.80	
		1	30.00	1.90	0.75	0.60	0.68	38.48	
		1	30.00	1.80	0.60	0.70	0.65	35.10	
		1	30.00	1.80	0.60	0.75	0.68	36.45	
		1	30.00	1.80	0.75	0.70	0.73	39.15	
		1	30.00	1.90	0.70	0.65	0.68	38.48	
		1	30.00	2.00	0.65	0.75	0.70	42.00	
		1	30.00	2.00	0.75	0.65	0.70	42.00	
		1	30.00	2.00	0.65	0.70	0.68	40.50	
		1	30.00	2.00	0.70	0.65	0.68	40.50	
		1	30.00	2.00	0.65	0.75	0.70	42.00	
		1	30.00	2.00	0.75	0.70	0.73	43.50	
		1	4.00	2.00	0.70	0.75	0.73	5.80	
	Hand Railing pole Concrete								
		628	0.45	0.45			0.45	57.23	
							Total Qty =	**678.94**	
							Qty Limited to Tender Qty =	**662.03**	

ASSISTANT EXECUTIVE ENGINEER Vidyaranyapura Sub-Division Bruhath Bengaluru Mahanagara

Smitha. NL
Assistant Engineer
Ward No. 10
10/01

Assistant Executive Engineer
Vidayranyapura Sub Division

SL. NO.	DESCRIPTION OF WORK	Nos	L	B	D1	D2	Av.D	QTY	Unit
1	2	3	4	5	6	7	8	9	10
	Measurements Recarded on :								
5	Earth work in **Excavation for foundation** of structures as per drawing and technical specifications, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material complete as per MORTH specification No.304 B. in **Ordinary soil upto 3m** depth(By mechanical means)								Cum
	Removal Silt in SSM Drain								
	R/S	1	25.00	1.30	1.00	1.20	1.10	35.75	
		1	28.30	1.30	1.20	1.50	1.35	49.67	
		1	23.40	1.30	1.50	1.60	1.55	47.15	
		1	16.80	1.30	1.60	1.50	1.55	33.85	
		1	28.00	1.30	1.50	1.30	1.40	50.96	
		1	23.10	1.30	1.30	1.35	1.33	39.79	
		1	16.70	1.30	1.35	1.25	1.30	28.22	
		1	19.70	1.30	1.25	1.10	1.18	30.09	
		1	13.60	1.30	1.10	1.20	1.15	20.33	
		1	16.70	1.30	1.20	1.50	1.35	29.31	
		1	17.30	1.30	1.50	1.80	1.65	37.11	
		1	22.60	1.30	1.80	1.60	1.70	49.95	
	L/S	1	12.80	1.30	1.60	1.60	1.60	26.62	
		1	14.90	1.30	1.60	1.50	1.55	30.02	
		1	13.10	1.30	1.50	1.30	1.40	23.84	
		1	10.90	1.30	1.30	1.20	1.25	17.71	
		1	16.40	1.30	1.20	1.30	1.25	26.65	
		1	18.70	1.30	1.30	1.30	1.30	31.60	
		1	26.50	1.30	1.30	0.95	1.13	38.76	
		1	28.10	1.30	0.95	0.90	0.93	33.79	
		1	16.40	1.30	0.90	1.20	1.05	22.39	
		1	15.50	1.30	1.20	1.00	1.10	22.17	
		1	19.50	1.30	1.00	1.20	1.10	27.89	
		Total Qty =						753.62	
		Qty Limited to Tender Qty =						**752.64**	
	Qty Upto 125%							**743.85**	
	Qty Above 125%							**8.79**	

ASSISTANT EXECUTIVE ENGINEER Vidyaranyapura Sub-Division Bruhat Bengaluru Mahanagara

Assistant Engineer 10/01
Ward No. 10

Assistant Executive Engineer
Vidayranyapura Sub Division

SL. NO.	DESCRIPTION OF WORK	Nos	L	B	D1	D2	Av.D	QTY	Unit
1	2	3	4	5	6	7	8	9	10
	Measurements Recarded on :								
6	Plain Cement Concrete **1:2:4** with OPC cement @ 240 kgs, with 40mm and down size graded granite metal coarse aggregates @0.84 cum and fine aggregates @ 0.56cum, in open foundation including cost of all materials, labour, HOM curing, from works, scaffolding and centring complete as per Specification complete as Drawing and Technical Specifications.								Cum
	Removal Silt in SSM Drain								
	SSM wall PCC								
	R/S	1	25.00	1.30			0.10	3.25	
		1	28.30	1.30			0.10	3.68	
		1	23.40	1.30			0.10	3.04	
		1	16.80	1.30			0.10	2.18	
		1	28.00	1.30			0.10	3.64	
		1	23.10	1.30			0.10	3.00	
		1	16.70	1.30			0.10	2.17	
		1	19.70	1.30			0.10	2.56	
		1	13.60	1.30			0.10	1.77	
		1	16.70	1.30			0.10	2.17	
		1	17.30	1.30			0.10	2.25	
		1	22.60	1.30			0.10	2.94	
	L/S	1	12.80	1.30			0.10	1.66	
		1	14.90	1.30			0.10	1.94	
		1	13.10	1.30			0.10	1.70	
		1	10.90	1.30			0.10	1.42	
		1	16.40	1.30			0.10	2.13	
		1	18.70	1.30			0.10	2.43	
		1	26.50	1.30			0.10	3.45	
		1	28.10	1.30			0.10	3.65	
		1	16.40	1.30			0.10	2.13	
		1	15.50	1.30			0.10	2.02	
		1	19.50	1.30			0.10	2.54	
	SSM Coping								
		2	11.90	0.60			0.10	1.43	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	15.60	0.60			0.10	1.87	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	30.00	0.60			0.10	3.60	
		2	4.00	0.60			0.10	0.48	
	Bed Protection PCC								
		1	11.90	1.90			0.15	3.39	
		1	30.00	1.90			0.15	8.55	

ASSISTANT EXECUTIVE ENG
Vidyaranyapura Sub-Di
North Bengaluru Mahar

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SL. NO.	DESCRIPTION OF WORK	Nos	L	B	D1	D2	Av.D	QTY	Unit
1	2	3	4	5	6	7	8	9	10
		1	30.00	1.90			0.15	8.55	
		1	30.00	1.90			0.15	8.55	
		1	15.60	1.80			0.10	2.81	
		1	30.00	1.80			0.10	5.40	
		1	30.00	1.90			0.10	5.70	
		1	30.00	1.80			0.10	5.40	
		1	30.00	1.80			0.10	5.40	
		1	30.00	1.80			0.10	5.40	
		1	30.00	1.90			0.10	5.70	
		1	30.00	2.00			0.10	6.00	
		1	30.00	2.00			0.10	6.00	
		1	30.00	2.00			0.10	6.00	
		1	30.00	2.00			0.10	6.00	
		1	30.00	2.00			0.10	6.00	
		1	30.00	2.00			0.10	6.00	
		1	4.00	2.00			0.10	0.80	
				Total Qty =				217.15	
				Qty Limited to Tender Qty =				216.64	5785.15

89.71

Assistant Engineer 15/02
Ward No. 10

Assistant Executive Engineer
Vidayranyapura Sub Division

SL. NO.	DESCRIPTION OF WORK	Nos	L	B	D1	D2	Av.D	QTY	Unit
1	2	3	4	5	6	7	8	9	10
	Measurements Recarded on :								
9	Providing and constructing Stone Masonry Work in Cement Mortar 1:4 **using available stones at site** in Foundation complete as per Drawing and Technical Specifications including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications. B. Random Rubble Masonry(coursed / uncoursed)								Cum
	Available Stone Quantity								
	1St Lift SSM wall								
	R/S	1	25.00	1.20			0.55	16.50	
		1	28.30	1.20			0.55	18.68	
		1	23.40	1.20			0.55	15.44	
		1	16.80	1.20			0.55	11.09	
		1	28.00	1.20			0.55	18.48	
		1	23.10	1.20			0.55	15.25	
		1	16.70	1.20			0.55	11.02	
		1	19.70	1.20			0.55	13.00	
		1	13.60	1.20			0.55	8.98	
		1	16.70	1.20			0.55	11.02	
		1	17.30	1.20			0.55	11.42	
		1	22.60	1.20			0.55	14.92	
	L/S	1	12.80	1.20			0.55	8.45	
		1	14.90	1.20			0.55	9.83	
		1	13.10	1.20			0.55	8.65	
		1	10.90	1.20			0.55	7.19	
		1	16.40	1.20			0.55	10.82	
		1	18.70	1.20			0.55	12.34	
		1	26.50	1.20			0.55	17.49	
		1	28.10	1.20			0.55	18.55	
		1	16.40	1.20			0.55	10.82	
		1	15.50	1.20			0.55	10.23	
		1	19.50	1.20			0.55	12.87	
	2nd Lift SSM Wall								
	R/S	1	25.00	0.90			0.70	15.75	
		1	28.30	0.90			0.70	17.83	
		1	23.40	0.90			0.70	14.74	
		1	16.80	0.90			0.70	10.58	
		1	28.00	0.90			0.70	17.64	
		1	23.10	0.90			0.70	14.55	
		1	16.70	0.90			0.70	10.52	
		1	19.70	0.90			0.70	12.41	
		1	13.60	0.90			0.70	8.57	
		1	16.70	0.90			0.70	10.52	
		1	17.30	0.90			0.70	10.90	
		1	22.60	0.90			0.70	14.24	
	L/S	1	12.80	0.90			0.70	8.06	
		1	14.90	0.90			0.70	9.39	
		1	13.10	0.90			0.70	8.25	
		1	10.90	0.90			0.70	6.87	
		1	16.40	0.90			0.70	10.33	
		1	18.70	0.90			0.70	11.78	
		1	26.50	0.90			0.60	14.31	
		1	28.10	0.90			0.60	15.17	
		1	16.40	0.90			0.60	8.86	

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Vidyaranyapura Su
Bruhath Bengaluru M

544.32

SL. NO.	DESCRIPTION OF WORK	Nos	L	B	D1	D2	Av.D	QTY	Unit
1	2	3	4	5	6	7	8	9	10
		1	15.50	0.90			0.60	8.37	
		1	19.50	0.90			0.60	10.53	
		Total Qty =						563.22	
		Qty Limited to Tender Qty =						562.75	3108.13

Assistant Engineer 28/02
Ward No. 10

28/02
Assistant Executive Engineer
Vidayranyapura Sub Division

ASSISTANT EXECUTIVE ENGINEER
Vidyaranyapura Sub-Division
Bruhath Bengaluru Mahanagara Palike

SL. NO.	DESCRIPTION OF WORK	Nos	L	B	D1	D2	Av.D	QTY	Unit
1	2	3	4	5	6	7	8	9	10
	Measurements Recarded on :								
14	**KSRRB M2200-6.** Providing **T.M.T. steel** reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200 **TMT Bars Fe 500 (For Sub Structure)**								Tonne
	Raft	**No**	**L**	**Mtrs**	**Kg/m**	**Kgs**			
	10 mm	2x55	2.00	220.00	0.62	136.40			
	8 mm	2x9	11.90	214.20	0.39	83.54			
	10 mm	2x2245	2.00	8980.00	0.62	5567.60			
	8 mm	2x9	469.60	8452.80	0.39	3296.59			
						9084.13	Kgs		
		Total Qty =				**9.08**	Tonnes		
		Qty Limited to Tender Qty =				**9.07**			

Assistant Engineer 10/03
Ward No. 10

Assistant Executive Engineer
Vidayranyapura Sub Division

ASSISTANT EXECUTIVE ENGINEER
Vidyaranyapura Sub-Division
Bruhath Bengaluru Mahanagara Palike